

## CHAPTER 8: GREEN BUILDING STANDARDS

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**19.08.010 - Purpose.** The purpose of this Chapter is to enhance the long-term public health, welfare, and improve the environmental and economic health of the County. The provisions referenced in this Chapter are designed to achieve the following objectives in support of the stated purpose:

1. Increase energy efficiency in buildings;
2. Encourage water and resource conservation;
3. Reduce waste generated by construction projects;
4. Reduce long-term building operation and maintenance costs;
5. Improve indoor air quality and occupant health; and
6. Contribute to meeting the state and local commitments to reduce greenhouse gas production and emissions

**19.08.020 – Definitions.** The following definitions shall apply to this chapter:

- a. “Covered project” means a development project for which one or more building permits are required for new construction, additions, alterations or repairs to any residential or non residential structure as set forth by the standards for Scope and Applicability outlined in Section 19.01.020
- b. “Green building” means a whole systems approach to the design, construction, and operation of buildings that substantially mitigates the environmental impacts of buildings. Green building practices recognize the relationship between natural and built environments and seek to minimize the use of energy, water and other natural resources and provide a healthy, productive indoor environment.
- c. “BIG” or “Build It Green”, a non-profit organization which established and maintains the Green Point Rated system for evaluating and certifying residential green buildings and green building professionals.
- d. “BPI” means the Building Performance Institute, a non-profit organization which provides training and certification of green building professionals.
- e. “GBCI” means the “Green Building Certification Institute”, a non-profit organization which certifies green buildings and green building professionals under the LEED rating system.
- f. “Green building checklist” means a checklist or rating sheet used for calculating a green building rating.
- g. “Green building rating system” means a standardized rating system providing specific criteria to determine the level of compliance of building projects as set forth by the Standards for Compliance outlined in 19.04.140.

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- h. "GreenPoint Rated" means a residential building certified as complying with the green building rating systems developed by the Build It Green organization.
- i. "GreenPoint Rater" means an individual certified by Build It Green as capable of evaluating and rating residential construction projects for compliance with the GreenPoint Rated green building rating systems.
- j. "HERS" means the Home Energy Rating System adopted by the California Energy Commission.
- k. "LEED®" means the "Leadership in Energy and Environmental Design" green building rating system developed by the US Green Building Council.
- l. "New construction" means the construction of a new or replacement residential dwelling unit or a new or expanded commercial building.
- m. "USGBC" means the US Green Building Council, a non-profit organization which established and maintains the LEED® rating systems for evaluating and certifying green buildings and green building professionals.

### 19.08.030 – Applicability.

The provisions of this Chapter shall apply to all construction or development projects defined as a "Covered Project" effective January 1, 2013.

**19.08.040 – Residential Standards.** The following standards apply to all residential construction in addition to the minimum Cal Green requirements:

- A. All new work for alterations or additions shall comply with the current minimum Cal Green standards as they are applied to all new construction.
- B. Home energy rating:
  - 1. Alterations or additions with a construction value over \$10,000.00 shall have a Home Energy Rating at construction completion.
  - 2. Ratings will be registered with the municipality and/or assessor for public access.
  - 3. Rating shall be completed by a certified HERS rater or as determined by the jurisdiction. The rating shall be valid for 5 years.
- C. New homes 2,500 SF or less shall submit a green building checklist to include on the building plans one of the following (no additional third party inspection is required for section 19.08.040 C, verification of these requirements shall be completed by the County Planning and Building Department):
  - 1. Green Point Rated, achieving a minimum of 75 points. The project is not required to exceed current Title 24 Part 6 energy requirements as a part of this checklist.
  - 2. LEED for Homes achieving a minimum of 40 Points. The project is not required to exceed current Title 24 Part 6 energy requirements as a part of this checklist.
  - 3. CAL Green Tier 1. The project is not required to exceed current Title 24 Part 6 energy requirements as a part of this checklist.
- D. Homes greater than 2,500 SF shall complete third party verified certification. Certification shall include one of the following, including exceeding the 2010 Title 24 Part 6 energy requirements by a minimum of 15%:
  - 1. of Green Point Rated with 75 points minimum; or
  - 2. LEED for Homes Certified..

- E. Indoor Water: For alterations or additions with a valuation over \$10,000.00: Any existing fixtures that exceed the thresholds in the water use baseline table below shall be brought up to CAL Green mandatory requirements:

Fixture Type	Maximum Flow Rate
Showerheads	2.5 gpm @ 80 psi
Lavatory faucets nonresidential	0.5 gpm @ 60 psi
Lavatory faucets residential	2.2 gpm @ 60 psi
Kitchen faucets	2.2 gpm @ 60 psi
Water Closets	1.6 gallons/flush
Urinals	1.0 gallons/flush

- F. Outdoor Water: New Construction shall comply with CAL Green Tier 1 for outdoor water requirements.
- G. Affordable Housing Projects: All projects receiving affordable housing funding (such as in-lieu funds, federal HOME & block grant funds) shall complete one of the following:
1. Complete third party project certification for Green Point Rated with a minimum of 75 points. Evidence of certification shall be required within 1 year of Certificate of Occupancy; or
  2. LEED Silver Certification (Homes or New Construction as applicable). Evidence of certification shall be required within 1 year of Certificate of Occupancy; or
  3. Comply with all Cal Green Tier I requirements (including Cal Green Tier I energy requirements). Project verification to be completed by the County Department of Planning and Building prior to the issuance of certificate of occupancy.
- H. Renewable Energy:
1. New Construction: Plans shall identify a conduit system from the main electrical panel to an accessible location. Location may be either attic space, roof structure, or an area onsite designated for future renewable energy generation to accommodate a point of connection on the load side of the electrical service disconnecting means. The conduit system shall be sized per Table 19.08.040(H)(1). The County recognizes there are multiple service configurations and options currently available. Service options not listed in Table 19.08.040(H)(1) shall default to CEC Article 690 and 705 requirements, where conduit shall be sized to accommodate a branch circuit sized at 20% of the rating of the busbar. Renewable energy connections installed on the supply of the service disconnecting means are permitted as allowed per the CEC, however, shall meet all local Utility requirements, in addition, shall maintain the gear's product listing (i.e. UL or equivalent listing agency).

Table 19.08.040(H)(1) Minimum Conduit Size Requirements for a Future Renewable energy System

Service Rating	Renewable Capacity	Conduit Size Required
100A	20 Amps @ 120 Volts	(1) 3/4" Conduit
120A	24 Amps @ 120 Volts	(1) 3/4" Conduit
150A	30 Amps @ 120 Volts	(1) 3/4" Conduit
200A	40 Amps @ 120 Volts	(1) 1" Conduit
400A	80 Amps @ 120 Volts	(1) 1-1/4" Conduit

#### 19.08.050– Non Residential Standards.

The following standards apply to all non-residential construction in addition to the minimum Cal Green requirements:

- A. All new work for alterations or additions shall comply with the current minimum Cal Green standards similar to all new construction.
- B. Non-residential projects with a construction value greater than \$10,000.00 shall submit a green building checklist to include on the building plans one of the following (no additional third party inspection is required for section 19.08.050 B, verification of these requirements shall be completed by the County Planning and Building Department):
  1. LEED checklist with a minimum of 40 Points. The project is not required to exceed current Title 24 Part 6 energy requirements as a part of this checklist.
  2. CAL Green checklist showing a minimum compliance with Tier 1. The project is not required to exceed current Title 24 Part 6 energy requirements as a part of this checklist.
- C. Non-residential projects with a construction value of \$1,000,000, or a project greater than 10,000 square feet:
  1. Projects shall be LEED Certified or comply with CAL Green Tier 1; certification includes exceeding Title 24 by the threshold required by that rating system.
  2. Project registration or equivalent required at permit issuance; evidence of certification shall be required within 1 year of Certificate of Occupancy.
- D. Indoor Water: For alterations or additions with a valuation over \$10,000: Any existing fixtures that exceed the thresholds in the water use baseline table below shall be brought up to CAL Green mandatory requirements:

Fixture Type	Maximum Flow Rate
Showerheads	2.5 gpm @ 80 psi
Lavatory faucets nonresidential	0.5 gpm @ 60 psi
Lavatory faucets residential	2.2 gpm @ 60 psi
Kitchen faucets	2.2 gpm @ 60 psi
Water Closets	1.6 gallons/flush
Urinals	1.0 gallons/flush

E. Outdoor Water: New Construction shall comply with CAL Green Tier 1 for outdoor water requirements.

F. Renewable Energy:

New Construction: Construction documents shall include a renewable energy system basis of design which identifies a kilo-watt (KW) system rating. The plans shall identify a conduit system from the main electrical panel to an accessible location (either attic space, roof structure, or an area onsite designated for future renewable energy generation). The single line diagram shall identify how the renewable energy system output is interconnected to the electrical distribution system pursuant to CEC Article 690 and 705 requirements.**19.08.060 Additional Requirements:**

A. Waste recycling:

1. All new construction, alterations and additions, demolitions, including county projects, shall be required to divert at least 70%, with a goal to increase diversion to 75% (as local recycling facilities are available), for all project construction and demolition debris.
2. Applicants shall complete and submit a waste management recycling plan at construction permit application submittal. The applicant shall include:
  - a. The project owner, project location, and project contractor;
  - b. The total size (square footage) of the demolition and/or construction portions of the project, including any asphalt or concrete work
  - c. The estimated volume or weight of project construction and demolition debris, by materials type, to be generated, using standard generation rates provided by the Chief Building Official;
  - d. The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling;
  - e. The vendor or facility that the applicant/contractor proposes to use to collect or receive that material; and
  - f. The estimated volume or weight of construction and demolition debris that will be landfilled.
3. Prior to receiving final inspection or notice of completion for the project the applicant/contractor shall submit a Recycling and Disposal Report which documents that the diversion requirement for the project has been met. The diversion requirement is satisfied if the applicant/contractor has diverted at least 70% of the total construction and demolition debris generated by the project via reuse or recycling, unless an exemption has been granted pursuant to Section 19.08.090 of this chapter, in which case the diversion requirement shall be the maximum feasible diversion rate established by the Department of Planning and Building. The disposal report documentation shall include all of the following:
  - a. All receipts from the vendor or facility which collected or received each material showing the actual weight or volume of that material;
  - b. Any photographs that document the reuse of materials on site;
  - c. A completed Disposal Report section showing the actual volume or weight of each material diverted and landfilled;
  - d. Any additional information the applicant/contractor believes is relevant to determining its efforts to comply in good faith with this chapter.
4. Applicants or contractors shall make reasonable efforts to ensure that all construction and demolition debris diverted or landfilled are measured and

recorded using the most accurate method of measurement available. To the extent practical, all construction and demolition debris shall be measured by weight on scales. Such scales shall be in compliance with all regulatory requirements for accuracy and maintenance. For construction and demolition debris for which weighing is not practical due to small size or other considerations, a volumetric measurement shall be used. For conversion of volumetric measurements to weight, the applicant/contractor shall use the standardized conversion rates approved by the Chief Building Official for this purpose.

B. Incentives

1. Residential: The cost of plan review by the County Plans Examiner (i.e. Building Plan Review Fee) shall be reduced by \$500.00 for all projects completing a third party verified rating system such as LEED, Green Point Rated or the Living Building Challenge.
2. Non Residential: The cost of plan review and by the County Plans Examiner (i.e. Building Plan Review Fee) shall be reduced by \$500.00 for all projects under 5,000 square feet, \$1,000.00 for all projects 5,000 – 10,000 square feet, and \$2,000.00 for all projects over 10,000 square feet when completing a third party verified rating system such as LEED, Green Point Rated.

**19.08.070 – Administrative Procedures.**

The procedures for compliance with the provisions of this Chapter shall include, but not be limited to, the following:

- A. Planning applications: If a discretionary land use permit is required for a Covered Project, applicants should be prepared to identify expected green building measures to be included in the project to achieve the compliance thresholds. Applicants should identify any anticipated difficulties in achieving compliance and any exemptions from the requirements of this Chapter that may be requested.
- B. Building plan check review: Upon submittal of an application for a building permit, building plans for any Covered Project shall include a green building program description and completed checklist. The checklist shall be incorporated onto a separate full-sized plan sheet included with the building plans.
- C. Changes during construction: During the construction process, alternate green building measures may be substituted, provided that the qualified professional provides documentation of the proposed change and the project's continued ability to achieve the Standards for Compliance to the Chief Building Official.
- D. Final building inspection: Prior to final building inspection and occupancy for any Covered Project, a qualified professional shall provide evidence that project construction has achieved the required compliance set forth in the Standards for Compliance outlined in Section 19.04.140. Where subsequent certification of the building is required by the Standards for Compliance, the Chief Building Official shall also determine whether the applicant has demonstrated that such certification is in process and will be achieved not later than one year after approval of final building inspection. If the Chief Building Official determines that the applicant has met these requirements, the final building inspection may proceed.
- E. Post final inspection requirement: Where certification of the building is required by the Standards for Compliance, and such certification is only available subsequent to

occupancy of the completed building, the applicant shall provide documentation of such certification within one year of the date of the building final. Failure to provide evidence of this certification within this timeframe, or within an alternate timeframe as determined by the Chief Building Official, will result in a determination that the Covered Project is not in compliance with the requirements of this Chapter.

- F. Conflict with other laws: The provisions of this Chapter are intended to be in addition to and not in conflict with other laws, regulations and ordinances relating to building construction and site development. If any provision of this Chapter conflicts with any duly adopted and valid statutes or regulations of the federal government of the State of California, the federal or state statutes or regulations shall take precedence.

#### **19.08.080 – Appeals.**

Any aggrieved applicant or person may appeal the determination of the Chief Building Official regarding the granting or denial of an exemption or compliance with any other provision of this Chapter. An appeal of a determination of the Chief Building Official shall be filed in writing and processed in accordance with the provisions of Section 19.01.140 of this title.

#### **19.08.090 – Exemptions.**

- A. The provisions of this Chapter shall not apply to:
1. Buildings which are temporary (such as construction trailers).
  2. Building area which is not or is not intended to be conditioned space.
  3. Any requirements of this Chapter which would impair the historic integrity of any building listed on a local, state or federal register of historic structures, as determined by the Chief Building Official. In making such a determination, the Chief Building Official may require the submittal of an evaluation by an architectural historian or similar expert.
  4. Improvements and project valuation related to seismic or disabled access, building replacement due to catastrophic loss due to flood or earthquake damage or installation of renewable energy systems
- B. Hardship or Infeasibility Exemption: If an applicant for a Covered Project believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this Chapter, the applicant may request an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility.
1. Application: The applicant shall identify in writing the specific requirements of the Standards for Compliance that the project is unable to achieve and the circumstances that make it a hardship or infeasible for the project to comply with this Chapter. Circumstances that constitute hardship or infeasibility shall include, but are not limited to, the following:
    - i. There is a conflict between the provisions of the applicable green building rating system and the California Building Standards Code, other State code provisions, other requirements of this Title or conditions imposed on the project through a previously approved planning application;
    - ii. There is a lack of commercially available green building materials and technologies to comply with the green building rating system;
    - iii. That the cost of achieving compliance is disproportionate to the overall cost of the project;
    - iv. That physical conditions of the project site make it impractical to incorporate necessary green building measures or achieve the Standards for Compliance;

- v. That compliance with certain requirements would impair the historic integrity of buildings listed on a local, state or federal list or register of historic structures;
- 2. Granting of exemption: If the Chief Building Official determines that it is a hardship or infeasible for the applicant to fully meet the requirements of this Chapter, the Chief Building Official shall determine the maximum feasible threshold of compliance reasonably achievable for the project. In making this determination, the Chief Building Official shall consider whether alternate, practical means of achieving the objectives of this Chapter can be satisfied, such as reducing comparable energy use at an offsite location within the County. If an exemption is granted, the applicant shall be required to comply with this chapter in all other respects and shall be required to achieve the threshold of compliance determined to be achievable by the Chief Building Official.
- 3. Denial of exception: If the Chief Building Official determines that it is reasonably possible for the applicant to fully meet the requirements of this Chapter, the request shall be denied and the applicant shall be notified of the decision in writing. The project and compliance documentation shall be modified to comply with the Standards for Compliance.